

EXCELCHEM
Environmental Labs

1135 W Sunset Boulevard
Suite A
Rocklin, CA 95765
Phone# 916-543-4445
Fax# 916-543-4449



ELAP Certificate No. : 2119

06 November 2012

Calvin Yang

RWQC Central Valley

11020 Sun Center Dr. #200

Rancho Cordova, CA 95670

RE: MUN Evaluation

Work order number:1209348

Enclosed are the results of analyses for samples received by the laboratory on 09/26/12 16:30. All Quality Control results are within acceptable limits except where noted as a case narrative. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

John Somers, Lab Director

Excelchem Environmental Labs

RWQC Central Valley
11020 Sun Center Dr. #200
Rancho Cordova, CA 95670

Project: MUN Evaluation
Project Number: 10-026-150-0
Project Manager: Calvin Yang

Date Reported:
11/06/12 13:54

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AWL 120926-40	1209348-01	Water	09/26/12 08:20	09/26/12 16:30
AWL 120926-41	1209348-02	Water	09/26/12 09:07	09/26/12 16:30
AWL 120926-42	1209348-03	Water	09/26/12 09:15	09/26/12 16:30
AWL 120926-43	1209348-04	Water	09/26/12 09:38	09/26/12 16:30
AWL 120926-44	1209348-05	Water	09/26/12 10:20	09/26/12 16:30
AWL 120926-45	1209348-06	Water	09/26/12 10:45	09/26/12 16:30
AWL 120926-46	1209348-07	Water	09/26/12 13:00	09/26/12 16:30
AWL 120926-51	1209348-08	Water	09/26/12 11:40	09/26/12 16:30
AWL 120926-52	1209348-09	Water	09/26/12 11:50	09/26/12 16:30
AWL 120926-53	1209348-10	Water	09/26/12 12:00	09/26/12 16:30
AWL 120926-54	1209348-11	Water	09/26/12 14:35	09/26/12 16:30
AWL 120926-55	1209348-12	Water	09/26/12 14:50	09/26/12 16:30
AWL 120926-56	1209348-13	Water	09/26/12 15:15	09/26/12 16:30

Excelchem Environmental Lab.



Laboratory Representative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Excelchem Environmental Labs

RWQC Central Valley
11020 Sun Center Dr. #200
Rancho Cordova, CA 95670

Project: MUN Evaluation
Project Number: 10-026-150-0
Project Manager: Calvin Yang

Date Reported:
11/06/12 13:54

AWL 120926-40 1209348-01 (Water)

Analyte	Result	Reporting Limit	MDL	Units	DF	Batch	Date Prepared	Date Analyzed	Method	Notes
---------	--------	-----------------	-----	-------	----	-------	---------------	---------------	--------	-------

Ion Chromatography

Nitrate as Nitrogen	ND	0.11	0.02	mg/L	1	AVK0225	09/26/12	09/26/12	EPA 300.0
---------------------	----	------	------	------	---	---------	----------	----------	-----------

Dissolved Metals

Dissolved Aluminum	ND	50.0	24.5	ug/l	1	AVK0096	10/03/12	10/04/12	EPA 200.7
Dissolved Arsenic	ND	10.0	1.0	"	1	"	"	"	"
Dissolved Iron	28.8	20.0	11.5	"	1	"	"	"	"
Dissolved Manganese	ND	10.0	0.6	"	1	"	"	"	"

Excelchem Environmental Lab.



Laboratory Representative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Excelchem Environmental Labs

RWQC Central Valley
11020 Sun Center Dr. #200
Rancho Cordova, CA 95670

Project: MUN Evaluation
Project Number: 10-026-150-0
Project Manager: Calvin Yang

Date Reported:
11/06/12 13:54

AWL 120926-41 1209348-02 (Water)

Analyte	Result	Reporting Limit	MDL	Units	DF	Batch	Date Prepared	Date Analyzed	Method	Notes
---------	--------	-----------------	-----	-------	----	-------	---------------	---------------	--------	-------

Ion Chromatography

Nitrate as Nitrogen	ND	0.11	0.02	mg/L	1	AVK0225	09/26/12	09/26/12	EPA 300.0
---------------------	----	------	------	------	---	---------	----------	----------	-----------

Dissolved Metals

Dissolved Aluminum	ND	50.0	24.5	ug/l	1	AVK0096	10/03/12	10/04/12	EPA 200.7
Dissolved Arsenic	ND	10.0	1.0	"	1	"	"	"	"
Dissolved Iron	ND	20.0	11.5	"	1	"	"	"	"
Dissolved Manganese	58.7	10.0	0.6	"	1	"	"	"	"

Excelchem Environmental Lab.



Laboratory Representative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Excelchem Environmental Labs

RWQC Central Valley
11020 Sun Center Dr. #200
Rancho Cordova, CA 95670

Project: MUN Evaluation
Project Number: 10-026-150-0
Project Manager: Calvin Yang

Date Reported:
11/06/12 13:54

AWL 120926-42 1209348-03 (Water)

Analyte	Result	Reporting Limit	MDL	Units	DF	Batch	Date Prepared	Date Analyzed	Method	Notes
---------	--------	-----------------	-----	-------	----	-------	---------------	---------------	--------	-------

Ion Chromatography

Nitrate as Nitrogen	ND	0.11	0.02	mg/L	1	AVK0225	09/26/12	09/26/12	EPA 300.0
---------------------	----	------	------	------	---	---------	----------	----------	-----------

Dissolved Metals

Dissolved Aluminum	ND	50.0	24.5	ug/l	1	AVK0096	10/03/12	10/04/12	EPA 200.7
Dissolved Arsenic	ND	10.0	1.0	"	1	"	"	"	"
Dissolved Iron	44.2	20.0	11.5	"	1	"	"	"	"
Dissolved Manganese	18.4	10.0	0.6	"	1	"	"	"	"

Excelchem Environmental Lab.



Laboratory Representative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Excelchem Environmental Labs

RWQC Central Valley
11020 Sun Center Dr. #200
Rancho Cordova, CA 95670

Project: MUN Evaluation
Project Number: 10-026-150-0
Project Manager: Calvin Yang

Date Reported:
11/06/12 13:54

AWL 120926-43 1209348-04 (Water)

Analyte	Result	Reporting Limit	MDL	Units	DF	Batch	Date Prepared	Date Analyzed	Method	Notes
---------	--------	-----------------	-----	-------	----	-------	---------------	---------------	--------	-------

Ion Chromatography

Nitrate as Nitrogen	ND	0.11	0.02	mg/L	1	AVK0225	09/26/12	09/26/12	EPA 300.0
---------------------	----	------	------	------	---	---------	----------	----------	-----------

Dissolved Metals

Dissolved Aluminum	ND	50.0	24.5	ug/l	1	AVK0096	10/03/12	10/04/12	EPA 200.7
Dissolved Arsenic	ND	10.0	1.0	"	1	"	"	"	"
Dissolved Iron	24.4	20.0	11.5	"	1	"	"	"	"
Dissolved Manganese	60.8	10.0	0.6	"	1	"	"	"	"

Excelchem Environmental Lab.



Laboratory Representative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Excelchem Environmental Labs

RWQC Central Valley
11020 Sun Center Dr. #200
Rancho Cordova, CA 95670

Project: MUN Evaluation
Project Number: 10-026-150-0
Project Manager: Calvin Yang

Date Reported:
11/06/12 13:54

AWL 120926-44 1209348-05 (Water)

Analyte	Result	Reporting Limit	MDL	Units	DF	Batch	Date Prepared	Date Analyzed	Method	Notes
---------	--------	-----------------	-----	-------	----	-------	---------------	---------------	--------	-------

Ion Chromatography

Nitrate as Nitrogen	ND	0.11	0.02	mg/L	1	AVK0225	09/26/12	09/26/12	EPA 300.0
---------------------	----	------	------	------	---	---------	----------	----------	-----------

Dissolved Metals

Dissolved Aluminum	ND	50.0	24.5	ug/l	1	AVK0096	10/03/12	10/04/12	EPA 200.7
Dissolved Arsenic	ND	10.0	1.0	"	1	"	"	"	"
Dissolved Iron	122	20.0	11.5	"	1	"	"	"	"
Dissolved Manganese	13.3	10.0	0.6	"	1	"	"	"	"

Excelchem Environmental Lab.



Laboratory Representative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Excelchem Environmental Labs

RWQC Central Valley
11020 Sun Center Dr. #200
Rancho Cordova, CA 95670

Project: MUN Evaluation
Project Number: 10-026-150-0
Project Manager: Calvin Yang

Date Reported:
11/06/12 13:54

AWL 120926-45 1209348-06 (Water)

Analyte	Result	Reporting Limit	MDL	Units	DF	Batch	Date Prepared	Date Analyzed	Method	Notes
---------	--------	-----------------	-----	-------	----	-------	---------------	---------------	--------	-------

Ion Chromatography

Nitrate as Nitrogen	0.12	0.11	0.02	mg/L	1	AVK0225	09/26/12	09/26/12	EPA 300.0
---------------------	------	------	------	------	---	---------	----------	----------	-----------

Dissolved Metals

Dissolved Aluminum	ND	50.0	24.5	ug/l	1	AVK0096	10/03/12	10/04/12	EPA 200.7
Dissolved Arsenic	ND	10.0	1.0	"	1	"	"	"	"
Dissolved Iron	38.1	20.0	11.5	"	1	"	"	"	"
Dissolved Manganese	17.1	10.0	0.6	"	1	"	"	"	"

Excelchem Environmental Lab.



Laboratory Representative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Excelchem Environmental Labs

RWQC Central Valley
11020 Sun Center Dr. #200
Rancho Cordova, CA 95670

Project: MUN Evaluation
Project Number: 10-026-150-0
Project Manager: Calvin Yang

Date Reported:
11/06/12 13:54

AWL 120926-46 1209348-07 (Water)

Analyte	Result	Reporting Limit	MDL	Units	DF	Batch	Date Prepared	Date Analyzed	Method	Notes
---------	--------	-----------------	-----	-------	----	-------	---------------	---------------	--------	-------

Ion Chromatography

Nitrate as Nitrogen	ND	0.11	0.02	mg/L	1	AVK0225	09/26/12	09/26/12	EPA 300.0
---------------------	----	------	------	------	---	---------	----------	----------	-----------

Dissolved Metals

Dissolved Aluminum	ND	50.0	24.5	ug/l	1	AVK0096	10/03/12	10/04/12	EPA 200.7
Dissolved Arsenic	ND	10.0	1.0	"	1	"	"	"	"
Dissolved Iron	96.8	20.0	11.5	"	1	"	"	"	"
Dissolved Manganese	149	10.0	0.6	"	1	"	"	"	"

Excelchem Environmental Lab.



Laboratory Representative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Excelchem Environmental Labs

RWQC Central Valley
11020 Sun Center Dr. #200
Rancho Cordova, CA 95670

Project: MUN Evaluation
Project Number: 10-026-150-0
Project Manager: Calvin Yang

Date Reported:
11/06/12 13:54

AWL 120926-51 1209348-08 (Water)

Analyte	Result	Reporting Limit	MDL	Units	DF	Batch	Date Prepared	Date Analyzed	Method	Notes
---------	--------	-----------------	-----	-------	----	-------	---------------	---------------	--------	-------

Ion Chromatography

Nitrate as Nitrogen	19.6	1.10	0.20	mg/L	10	AVK0225	09/27/12	09/27/12	EPA 300.0
---------------------	------	------	------	------	----	---------	----------	----------	-----------

Dissolved Metals

Dissolved Aluminum	ND	50.0	24.5	ug/l	1	AVK0096	10/03/12	10/04/12	EPA 200.7
Dissolved Arsenic	30.3	10.0	1.0	"	1	"	"	"	"
Dissolved Iron	48.3	20.0	11.5	"	1	"	"	"	"
Dissolved Manganese	ND	10.0	0.6	"	1	"	"	"	"

Excelchem Environmental Lab.



Laboratory Representative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Excelchem Environmental Labs

RWQC Central Valley
11020 Sun Center Dr. #200
Rancho Cordova, CA 95670

Project: MUN Evaluation
Project Number: 10-026-150-0
Project Manager: Calvin Yang

Date Reported:
11/06/12 13:54

AWL 120926-52 1209348-09 (Water)

Analyte	Result	Reporting Limit	MDL	Units	DF	Batch	Date Prepared	Date Analyzed	Method	Notes
---------	--------	-----------------	-----	-------	----	-------	---------------	---------------	--------	-------

Ion Chromatography

Nitrate as Nitrogen	19.4	1.10	0.20	mg/L	10	AVK0225	09/27/12	09/27/12	EPA 300.0
---------------------	------	------	------	------	----	---------	----------	----------	-----------

Dissolved Metals

Dissolved Aluminum	ND	50.0	24.5	ug/l	1	AVK0096	10/03/12	10/04/12	EPA 200.7
Dissolved Arsenic	30.2	10.0	1.0	"	1	"	"	"	"
Dissolved Iron	47.9	20.0	11.5	"	1	"	"	"	"
Dissolved Manganese	ND	10.0	0.6	"	1	"	"	"	"

Excelchem Environmental Lab.



Laboratory Representative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Excelchem Environmental Labs

RWQC Central Valley
11020 Sun Center Dr. #200
Rancho Cordova, CA 95670

Project: MUN Evaluation
Project Number: 10-026-150-0
Project Manager: Calvin Yang

Date Reported:
11/06/12 13:54

AWL 120926-53 1209348-10 (Water)

Analyte	Result	Reporting Limit	MDL	Units	DF	Batch	Date Prepared	Date Analyzed	Method	Notes
---------	--------	-----------------	-----	-------	----	-------	---------------	---------------	--------	-------

Ion Chromatography

Nitrate as Nitrogen	18.7	1.10	0.20	mg/L	10	AVK0225	09/27/12	09/27/12	EPA 300.0
---------------------	------	------	------	------	----	---------	----------	----------	-----------

Dissolved Metals

Dissolved Aluminum	ND	50.0	24.5	ug/l	1	AVK0096	10/03/12	10/04/12	EPA 200.7
Dissolved Arsenic	30.8	10.0	1.0	"	1	"	"	"	"
Dissolved Iron	29.0	20.0	11.5	"	1	"	"	"	"
Dissolved Manganese	ND	10.0	0.6	"	1	"	"	"	"

Excelchem Environmental Lab.



Laboratory Representative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Excelchem Environmental Labs

RWQC Central Valley
11020 Sun Center Dr. #200
Rancho Cordova, CA 95670

Project: MUN Evaluation
Project Number: 10-026-150-0
Project Manager: Calvin Yang

Date Reported:
11/06/12 13:54

AWL 120926-54 1209348-11 (Water)

Analyte	Result	Reporting Limit	MDL	Units	DF	Batch	Date Prepared	Date Analyzed	Method	Notes
---------	--------	-----------------	-----	-------	----	-------	---------------	---------------	--------	-------

Ion Chromatography

Nitrate as Nitrogen	ND	0.11	0.02	mg/L	1	AVK0225	09/26/12	09/26/12	EPA 300.0
---------------------	----	------	------	------	---	---------	----------	----------	-----------

Dissolved Metals

Dissolved Aluminum	ND	50.0	24.5	ug/l	1	AVK0209	10/03/12	10/04/12	EPA 200.7
Dissolved Arsenic	ND	10.0	1.0	"	1	"	"	"	"
Dissolved Iron	62.0	20.0	11.5	"	1	"	"	"	"
Dissolved Manganese	30.9	10.0	0.6	"	1	"	"	"	"

Excelchem Environmental Lab.



Laboratory Representative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Excelchem Environmental Labs

RWQC Central Valley
11020 Sun Center Dr. #200
Rancho Cordova, CA 95670

Project: MUN Evaluation
Project Number: 10-026-150-0
Project Manager: Calvin Yang

Date Reported:
11/06/12 13:54

AWL 120926-55 1209348-12 (Water)

Analyte	Result	Reporting Limit	MDL	Units	DF	Batch	Date Prepared	Date Analyzed	Method	Notes
---------	--------	-----------------	-----	-------	----	-------	---------------	---------------	--------	-------

Ion Chromatography

Nitrate as Nitrogen	0.30	0.11	0.02	mg/L	1	AVK0225	09/26/12	09/26/12	EPA 300.0
---------------------	------	------	------	------	---	---------	----------	----------	-----------

Dissolved Metals

Dissolved Aluminum	ND	50.0	24.5	ug/l	1	AVK0209	10/03/12	10/04/12	EPA 200.7
Dissolved Arsenic	ND	10.0	1.0	"	1	"	"	"	"
Dissolved Iron	34.5	20.0	11.5	"	1	"	"	"	"
Dissolved Manganese	11.7	10.0	0.6	"	1	"	"	"	"

Excelchem Environmental Lab.



Laboratory Representative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Excelchem Environmental Labs

RWQC Central Valley
11020 Sun Center Dr. #200
Rancho Cordova, CA 95670

Project: MUN Evaluation
Project Number: 10-026-150-0
Project Manager: Calvin Yang

Date Reported:
11/06/12 13:54

AWL 120926-56 1209348-13 (Water)

Analyte	Result	Reporting Limit	MDL	Units	DF	Batch	Date Prepared	Date Analyzed	Method	Notes
---------	--------	-----------------	-----	-------	----	-------	---------------	---------------	--------	-------

Ion Chromatography

Nitrate as Nitrogen	0.15	0.11	0.02	mg/L	1	AVK0225	09/26/12	09/26/12	EPA 300.0
---------------------	------	------	------	------	---	---------	----------	----------	-----------

Dissolved Metals

Dissolved Aluminum	ND	50.0	24.5	ug/l	1	AVK0209	10/03/12	10/05/12	EPA 200.7
Dissolved Arsenic	ND	10.0	1.0	"	1	"	"	"	"
Dissolved Iron	42.8	20.0	11.5	"	1	"	"	"	"
Dissolved Manganese	ND	10.0	0.6	"	1	"	"	"	"

Excelchem Environmental Lab.



Laboratory Representative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Excelchem Environmental Labs

RWQC Central Valley
11020 Sun Center Dr. #200
Rancho Cordova, CA 95670

Project: MUN Evaluation
Project Number: 10-026-150-0
Project Manager: Calvin Yang

Date Reported:
11/06/12 13:54

Ion Chromatography - Quality Control

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-----	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch AVK0225 - EPA 300.0

Blank (AVK0225-BLK1)

Prepared & Analyzed: 09/26/12

Nitrate as Nitrogen	ND	0.11		mg/L
---------------------	----	------	--	------

LCS (AVK0225-BS1)

Prepared & Analyzed: 09/26/12

Nitrate (NO3)	9.98	0.50		mg/L		80-120
Nitrate as Nitrogen	2.25	0.11		"		80-120

LCS Dup (AVK0225-BSD1)

Prepared & Analyzed: 09/26/12

Nitrate (NO3)	9.67	0.50		mg/L		80-120	3.07	20
Nitrate as Nitrogen	2.18	0.11		"		80-120	3.07	20

Matrix Spike (AVK0225-MS1)

Source: 1209348-01

Prepared & Analyzed: 09/26/12

Nitrate (NO3)	15.2	0.50		mg/L	10.0	0.40	148	75-125		QL-01
Nitrate as Nitrogen	3.43	0.11		"	2.26	0.09	148	75-125		QL-01

Matrix Spike Dup (AVK0225-MSD1)

Source: 1209348-01

Prepared & Analyzed: 09/26/12

Nitrate (NO3)	14.6	0.50		mg/L		0.40		75-125	4.14	20
Nitrate as Nitrogen	3.29	0.11		"		0.09		75-125	4.14	20

Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Laboratory Representative

Excelchem Environmental Labs

RWQC Central Valley
11020 Sun Center Dr. #200
Rancho Cordova, CA 95670

Project: MUN Evaluation
Project Number: 10-026-150-0
Project Manager: Calvin Yang

Date Reported:
11/06/12 13:54

Dissolved Metals - Quality Control

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-----	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch AVK0096 - EPA 200.7

Blank (AVK0096-BLK1)

Prepared: 10/03/12 Analyzed: 10/04/12

Dissolved Aluminum	ND	50.0		ug/l							
Dissolved Arsenic	ND	10.0		"							
Dissolved Iron	ND	20.0		"							
Dissolved Manganese	ND	10.0		"							

LCS (AVK0096-BS1)

Prepared: 10/03/12 Analyzed: 10/04/12

Dissolved Aluminum	1010	50.0		ug/l	1000		101	85-115			
Dissolved Arsenic	960	10.0		"	1000		96.0	85-115			
Dissolved Iron	1000	20.0		"	1000		100	85-115			
Dissolved Manganese	995	10.0		"	1000		99.5	85-115			

LCS Dup (AVK0096-BS1)

Prepared: 10/03/12 Analyzed: 10/04/12

Dissolved Aluminum	1030	50.0		ug/l	1000		103	85-115	1.77	20	
Dissolved Arsenic	966	10.0		"	1000		96.6	85-115	0.530	20	
Dissolved Iron	1000	20.0		"	1000		100	85-115	0.0998	20	
Dissolved Manganese	984	10.0		"	1000		98.4	85-115	1.03	20	

Matrix Spike (AVK0096-MS1)

Source: 1209348-01

Prepared: 10/03/12 Analyzed: 10/04/12

Dissolved Aluminum	992	50.0		ug/l	1000	ND	99.2	75-125			
Dissolved Arsenic	962	10.0		"	1000	ND	96.2	75-125			
Dissolved Iron	998	20.0		"	1000	28.8	96.9	75-125			
Dissolved Manganese	978	10.0		"	1000	2.00	97.6	75-125			


Matrix Spike Dup (AVK0096-MSD1)

Source: 1209348-01

Prepared: 10/03/12 Analyzed: 10/04/12

Dissolved Aluminum	1000	50.0		ug/l	1000	ND	100	75-125	1.11	25	
Dissolved Arsenic	962	10.0		"	1000	ND	96.2	75-125	0.0208	25	
Dissolved Iron	999	20.0		"	1000	28.8	97.0	75-125	0.100	25	
Dissolved Manganese	980	10.0		"	1000	2.00	97.8	75-125	0.255	25	

Excelchem Environmental Lab.



Laboratory Representative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Excelchem Environmental Labs

RWQC Central Valley
11020 Sun Center Dr. #200
Rancho Cordova, CA 95670

Project: MUN Evaluation
Project Number: 10-026-150-0
Project Manager: Calvin Yang

Date Reported:
11/06/12 13:54

Dissolved Metals - Quality Control

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-----	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch AVK0209 - EPA 200.7

Blank (AVK0209-BLK1)

Prepared: 10/03/12 Analyzed: 10/04/12

Dissolved Aluminum	ND	50.0		ug/l							
Dissolved Arsenic	ND	10.0		"							
Dissolved Iron	ND	20.0		"							
Dissolved Manganese	ND	10.0		"							

LCS (AVK0209-BS1)

Prepared: 10/03/12 Analyzed: 10/04/12

Dissolved Aluminum	983	50.0		ug/l	1000		98.3	85-115			
Dissolved Arsenic	1000	10.0		"	1000		100	85-115			
Dissolved Iron	996	20.0		"	1000		99.6	85-115			
Dissolved Manganese	989	10.0		"	1000		98.9	85-115			

LCS Dup (AVK0209-BS1)

Prepared: 10/03/12 Analyzed: 10/04/12

Dissolved Aluminum	1000	50.0		ug/l	1000		100	85-115	1.92	20	
Dissolved Arsenic	1000	10.0		"	1000		100	85-115	0.120	20	
Dissolved Iron	989	20.0		"	1000		98.9	85-115	0.635	20	
Dissolved Manganese	991	10.0		"	1000		99.1	85-115	0.172	20	

Matrix Spike (AVK0209-MS1)

Source: 1209347-01RE1

Prepared: 10/03/12 Analyzed: 10/04/12

Dissolved Aluminum	997	50.0		ug/l	1000	ND	99.7	75-125			
Dissolved Arsenic	1020	10.0		"	1000	ND	102	75-125			
Dissolved Iron	1010	20.0		"	1000	ND	101	75-125			
Dissolved Manganese	1310	10.0		"	1000	329	98.3	75-125			


Matrix Spike Dup (AVK0209-MSD1)

Source: 1209347-01RE1

Prepared: 10/03/12 Analyzed: 10/04/12

Dissolved Aluminum	976	50.0		ug/l	1000	ND	97.6	75-125	2.13	25	
Dissolved Arsenic	1020	10.0		"	1000	ND	102	75-125	0.196	25	
Dissolved Iron	993	20.0		"	1000	ND	99.3	75-125	1.69	25	
Dissolved Manganese	1300	10.0		"	1000	329	97.5	75-125	0.612	25	

Excelchem Environmental Lab.



Laboratory Representative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Excelchem Environmental Labs

RWQC Central Valley
11020 Sun Center Dr. #200
Rancho Cordova, CA 95670

Project: MUN Evaluation
Project Number: 10-026-150-0
Project Manager: Calvin Yang

Date Reported:
11/06/12 13:54

Notes and Definitions

QL-01 Sample results for the QC batch were accepted based on LCS/LCSD percent recoveries and RPD values.

ND Analyte not detected at reporting limit.

NR Not reported

Analysis Method

EPA 8260, EPA 8021/8015M

EPA 8270, EPA 8081, EPA 8082, EPA 8141, EPA 8015M (extractable)

Metals

TCLP

Not Specified

Prep Method

EPA 5030B

Water - EPA 3510C, Soil- EPA 3550B

Water- 3005A, Soil- 3050B

EPA 1311

Same as Analysis Method

Excelchem Environmental Lab.



Laboratory Representative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Excelchem Environmental Labs

RWQC Central Valley
11020 Sun Center Dr. #200
Rancho Cordova, CA 95670

Project: MUN Evaluation
Project Number: 10-026-150-0
Project Manager: Calvin Yang

Date Reported:
11/06/12 13:54

Excelchem Environmental Labs				CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST			
1135 W. Sunset Blvd. Suite A Rocklin, CA 95765 Ph: 916-543-4445 Fax: 916-543-4449 Project Manager: Calvin Yang, Leticia Valadez Company Address: Central Valley Regional Water Quality Control Board 11020 Sun Center Drive Suite #200 Cordova, CA 95670				Electronic Data Deliverables Request: <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> Geotracker (Spatial ID) <input type="checkbox"/> Other (please specify)			
Project Number: OE 10-026-150-0 Project Name: MUN Evaluation Project Location:				Email Address: ccyang@waterboards.ca.gov lvaladez@waterboards.ca.gov			
Project Manager Signature: <i>Calvin Yang</i> Date: 10/31/12 Work Order: 1207318				Bill # 12 Date: 10/31/12 Work Order: 1207318			
Sample ID	Sampling Date	Time	Container	Method Preserved	Matrix		Requested TAT - Wk
					Water	Soil	
AWL120926-40	10/30/12	0830	Plastic	None	Water	Soil	01
AWL120926-41	10/30/12	0907	Plastic	None	Water	Soil	02
AWL120926-42	10/30/12	0906	Plastic	None	Water	Soil	03
AWL120926-43	10/30/12	0938	Plastic	None	Water	Soil	04
AWL120926-44	10/30/12	0940	Plastic	None	Water	Soil	05
AWL120926-45	10/30/12	0945	Plastic	None	Water	Soil	06
AWL120926-46	10/30/12	1300	Plastic	None	Water	Soil	07
AWL120926-51	10/30/12	1146	Plastic	None	Water	Soil	08
AWL120926-52	10/30/12	1150	Plastic	None	Water	Soil	09
AWL120926-53	10/30/12	1150	Plastic	None	Water	Soil	10
AWL120926-54	10/30/12	1155	Plastic	None	Water	Soil	11
AWL120926-55	10/30/12	1450	Plastic	None	Water	Soil	12
AWL120926-56	10/30/12	1515	Plastic	None	Water	Soil	13
Dissolved: Aluminum, Iron, Manganese Nitrate as N Dissolved: Arsenic Requested TAT - Wk							
Relinquished by: <i>Calvin Yang</i> Date: 10/30/12 Time: 1630 Relinquished by: <i>Leticia Valadez</i> Date: 10/30/12 Time: 1630							
Remarks/Condition of Sample: Filter Fv lub Bill To: Leticia Valadez, Central Valley Regional Water Quality Control Board							

Excelchem Environmental Lab.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Laboratory Representative

Excelchem Environmental Labs

RWQC Central Valley
11020 Sun Center Dr. #200
Rancho Cordova, CA 95670

Project: MUN Evaluation
Project Number: 10-026-150-0
Project Manager: Calvin Yang

Date Reported:
11/06/12 13:54

Sample Integrity

WORK ORDER 1209348

Date Received: 9/26/12

Section 1 – Sample Arrival Info.

Sample Transport: QNTAC UPS USPS Walk-In EXCELCHEM Courier Fed-Ex Other: _____

Transported In: Ice Chest Box Hand

Describe type of packing materials: Bubble Wrap Foam Packing Peanuts Paper Other: _____

Has chilling process begun? Y N Samples Received: Chilled to Touch / Ambient / On Ice

Temperature of Samples (°C): 8 Ice Chest Temperature(s) (°C): 3

Section 2 – Bottle/Analysis Info.

	Yes	No	N/A	Comments
Did all bottles arrive unbroken and intact?	<input checked="" type="checkbox"/>			
Did all bottle labels agree with COC?			<input checked="" type="checkbox"/>	Sample ID on bottle
Were correct containers used for the tests requested?	<input checked="" type="checkbox"/>			
Were correct preservations used for the tests requested?	<input checked="" type="checkbox"/>			
Was a sufficient amount of sample sent for tests indicated?	<input checked="" type="checkbox"/>			
Were bubbles present in VOA Vials?: (Volatile Methods Only)			<input checked="" type="checkbox"/>	

Section 3 – Summa/Flow regulator Info.

Used Summa#: _____

Unused Summa#: _____

Cleaning Summa#: _____

Regulator#: _____

Was there any visual damage to summa canisters or flow regulators? **Explain.**

Section 4 – COC Info.

	Completed		Info From Container		Completed		Comments
	Yes	No			Yes	No	
Was COC Received	<input checked="" type="checkbox"/>			Analysis Requested	<input checked="" type="checkbox"/>		
Date Sampled	<input checked="" type="checkbox"/>			Samples arrived within holding time	<input checked="" type="checkbox"/>		
Time Sampled	<input checked="" type="checkbox"/>			Any hold times less than 72 hrs	<input checked="" type="checkbox"/>		NOS
Sample ID	<input checked="" type="checkbox"/>			Client Name	<input checked="" type="checkbox"/>		
Rush TAT		<input checked="" type="checkbox"/>		Address/Telephone #	<input checked="" type="checkbox"/>		

Section 5 – Comments / Discrepancies

Was Client notified of discrepancies: Yes No N/A Notified by: _____

Explanations / Comments: _____

Samples Labeled by: AA
Bin #s: 12
COC Scanned/Attached by: AA
Sample labels reviewed by: _____

Filled Jason Jishi
Out by: _____

Date: 9/26/12
Time: 1630

Excelchem Environmental Lab.



Laboratory Representative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.